



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D119-796-251
Job Sheet 176934



Part No: D119-796-251

Job Qty: 1 ea

Part Name: Aft Crosstube Installation With Step (No Hardware)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/3/18

Job Tracking No:

Due Date: 5/31/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG D119-796-251 REV E, IIN-D119-796 REV F IPP REV:A 14.09.09 NEW ISSUE DD VERF:JLM IPP
REV:B 14.10.15 AS PER REV.A DD VERF:JLM IPP REV:C 14.11.19 AS PER REV.C DD VERF:JLM IPP
REV:D 14.12.09 AS PER REV.PC6 DD VERF:JLM IPP REV:E 15.02.11 AS PER REV D JLM VERF:DD IPP
REV:F 17.12.11 REMOVE PACK KIT DD VERF:DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	5/31/18	5/31/18	0.00	0.00	Start Up Crosstubes-1		AB 11!! 09 2018
130	Crosstubes	1 pcs	5/31/18	5/31/18	0.00	0.51	Crosstubes-1		AR 11!! 09 2018
140	QC	1 pcs	5/31/18	5/31/18	0.00	0.00	QC5		38
145	DC	1 pcs	5/31/18	5/31/18	0.00	0.00	DC		NR
150	Packaging	1 pcs	5/31/18	5/31/18	0.00	0.00	Packaging3-1	LG050	KS 11!! 09 2018
160	QC21-FG	1 Ea	5/31/18	5/31/18	0.00	0.00	QC21		21 11!! 09 2018

Part Op 130 - 1- Install step and clamp with the proper position per dwg D119-796-251 ***Torque all clamps to 50 IN-LBS max.***
Descriptions: 140 - ***RE-CHECK TORCQUE ON CLAMP AS PER DWG.***
145 - Photocopy bluefile and create labels as per PPP D119-796-251 chg 004
150 - Identify and pack for shipping as per PPP D119-796-251

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D119-796-241	Aft Crosstube Installation Without Step (No Hardware)	1 Ea (1 ea)	90-Start up Operation	
D5123-3	Clamp Cushion	4 Ea (4 ea)	90-Start up Operation	
D5149-043	Aft Step Base Assembly	2 Ea (2 ea)	90-Start up Operation	
MS21920-25	Clamp	4 Ea (4 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D119-796-241 5079531	①	7	0
	D5123-3 5006028	④	294	0
	D5149-043 5039113①	③ 5068807①	5	0
	MS21920-25 5068660	④	97	0



Container No: S090099



Part: D119-796-251

Job No: 176934

Serial No/Batch: S090099

Revision: E/F

Inspector:

Exn Date:

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

ns

be found.

Plex 5/3/18 10:06 AM Dart.lajeunesse.marie

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



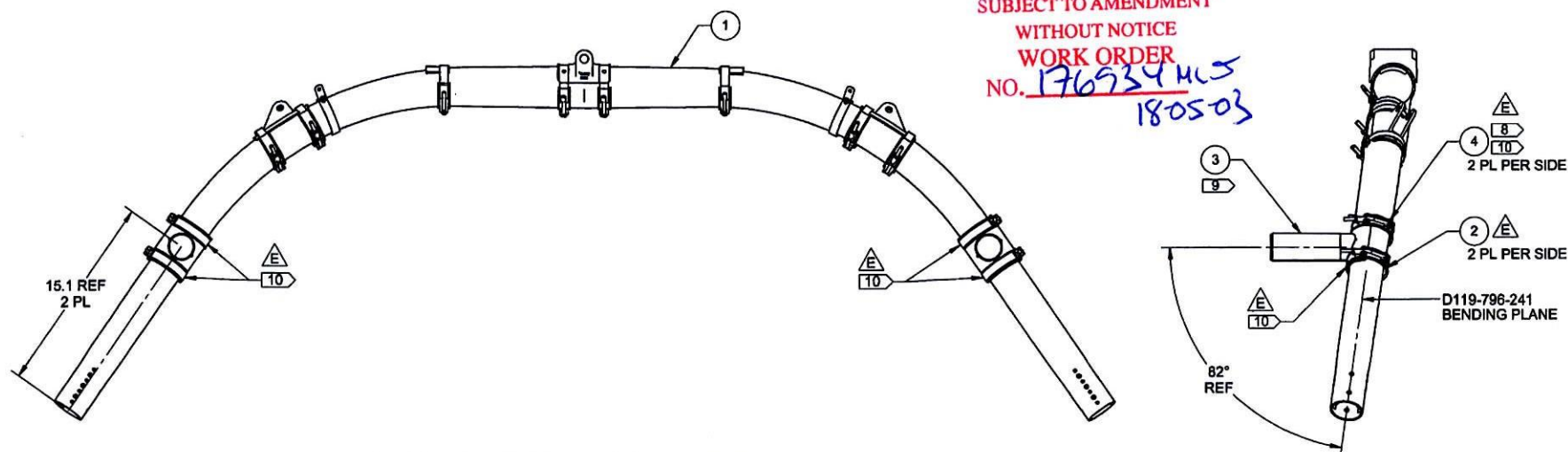
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

ITEM	QTY -251	P/N	DESCRIPTION
	X	D119-796-251	XTUBE ASSY (AW119 MKII AFT)
1	1	D119-796-241	XTUBE ASSY (AW119 MKII AFT)
2	4	D5123-3	CUSHION
3	2	D5149-043	AFT STEP ASSY
4	4	MS21920-25	CLAMP

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 176934 MC



D119-796-251 XTUBE ASSY (AW119 MKII AFT)

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 METHOD 6.5
- 7) WEIGHT: 29.9 lbs
- 8) TORQUE MS21920-25 CLAMPS TO 50 IN-LBS MAX
- 9) LOCATE STEP USING POST FITTING ON CROSSTUBE
- 10) POSITION MS21920 CLAMPS SECURING THE STEPS AS SHOWN.
THE THREADED PORTION OF THE CLAMP MUST FACE THE SAME DIRECTION AS THE STEP

E	MODIFY CLAMP ORIENTATION, ADD NOTE 10, REMOVED SECTION A-A (PAR1E-507)	ML	17.02.10
D	D5123-3 WAS D5123-9, MS21920-25 WAS -26, ADDED SECTION A-A	AP	15.01.19
C	RE-DESIGN STEP INSTALLATION	DB	14.11.24
B	D2274 RADIUS BLOCK WAS D5153-1, AN4C12A WAS AN4C10A	AP	14.10.04
A	NEW ISSUE	AP	14.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D119-796-251 TITLE XTUBE ASSY (AW119 MKII AFT)	
DRAWN	ML		
CHECKED	NO		
MFG. APPR.	DD		
APPROVED	WM		
DE APPR.	DS-#	SCALE NTS	
DATE	17.02.10		

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
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